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SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:

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(ii) TITLE OF INVENTION: Chemical Compounds

(iii) NUMBER OF SEQUENCES: 79

(iv) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

(vi) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: GB 9708676.3
(B) FILING DATE: 30-APR-1997

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

Leu Xaa Xaa Leu Leu
1 5

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Pro Gln Ala Gln Gln Lys Ser Leu Leu Gln Gln Leu Leu Thr
1 5 10

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

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Lys Leu Val Gln Leu Thr Thr Thr
1 5

5 (2) INFORMATION FOR SEQ ID NO: 4:

- (i) SEQUENCE CHARACTERISTICS:
10 (A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

Ile Leu His Arg Leu Leu Gln Glu
1 5

20 (2) INFORMATION FOR SEQ ID NO: 5:

- (i) SEQUENCE CHARACTERISTICS:
25 (A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

Leu Leu Gln Gln Leu Leu Thr Glu
1 5

35 (2) INFORMATION FOR SEQ ID NO: 6:

- (i) SEQUENCE CHARACTERISTICS:
40 (A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Tyr Leu Glu Gly Leu Leu Met His Gln Ala
1 5 10

50 (2) INFORMATION FOR SEQ ID NO: 7:

- (i) SEQUENCE CHARACTERISTICS:
55 (A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

Leu Leu Ala Ser Leu Leu Gln Ser
1 5

65 (2) INFORMATION FOR SEQ ID NO: 8:

- (i) SEQUENCE CHARACTERISTICS:
70 (A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

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(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

His Leu Lys Thr Leu Leu Lys Lys Ser
1 5

10 (2) INFORMATION FOR SEQ ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

Gln Leu Ala Leu Leu Leu Ser Ser
1 5

25 (2) INFORMATION FOR SEQ ID NO: 10:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

Leu Leu Leu His Leu Leu Lys Ser Gln
1 5

40 (2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

Val Thr Leu Leu Gln Leu Leu Leu Gly
1 5

55 (2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

60 (A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Val Leu Gln Leu Leu Leu Gly Asn
1 5

70 (2) INFORMATION FOR SEQ ID NO: 13:

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- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
Leu Leu Ser Arg Leu Leu Arg Gln
1 5
- 15 (2) INFORMATION FOR SEQ ID NO: 14:
- 20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
Val Leu Lys Gln Leu Leu Leu Ser Glu Asn
1 5 10
- 30 (2) INFORMATION FOR SEQ ID NO: 15:
- 35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
Val Leu Lys Gln Leu Leu Leu Ser
1 5
- 45 (2) INFORMATION FOR SEQ ID NO: 16:
- 50 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
Glu Leu Ala Glu Leu Leu Ser Ala Asn
1 5
- 60 (2) INFORMATION FOR SEQ ID NO: 17:
- 65 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

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Ser Leu Gly Pro Leu Leu Leu Glu
1 5

5 (2) INFORMATION FOR SEQ ID NO: 18:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

Lys Leu Val Gln Leu Leu Thr Thr Thr
1 5

20 (2) INFORMATION FOR SEQ ID NO: 19:

25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Ile Leu His Arg Leu Leu Gln Glu
1 5

35 (2) INFORMATION FOR SEQ ID NO: 20:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

Leu Leu Arg Tyr Leu Leu Asp Lys
1 5

50 (2) INFORMATION FOR SEQ ID NO: 21:

55 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Gln Leu Asp Glu Leu Leu Cys Pro Pro
1 5

65 (2) INFORMATION FOR SEQ ID NO: 22:

70 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

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- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:
- Leu Leu Gln Gln Leu Leu Thr Glu
1 5
- 10 (2) INFORMATION FOR SEQ ID NO: 23:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8 amino acids
- 15 (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:
- Gln Leu Ser Glu Leu Leu Arg Gly
1 5
- 25 (2) INFORMATION FOR SEQ ID NO: 24:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10 amino acids
- 30 (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:
- Val Leu Lys Gln Leu Leu Leu Ser Glu Asn
1 5 10
- 40 (2) INFORMATION FOR SEQ ID NO: 25:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9 amino acids
- 45 (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:
- Ala Leu Lys Gln Leu Leu Leu Ser Glu
1 5
- 55 (2) INFORMATION FOR SEQ ID NO: 26:
- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9 amino acids
- 60 (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:
- Val Ala Lys Gln Leu Leu Leu Ser Glu
1 5
- 70 (2) INFORMATION FOR SEQ ID NO: 27:

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- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:
Val Val Lys Gln Leu Leu Leu Ser Glu
1 5
- 15 (2) INFORMATION FOR SEQ ID NO: 28:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
20 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:
Val Leu Lys Gln Ala Leu Leu Ser Glu
1 5
- 30 (2) INFORMATION FOR SEQ ID NO: 29:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
35 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:
Val Leu Lys Gln Val Leu Leu Ser Glu
1 5
- 45 (2) INFORMATION FOR SEQ ID NO: 30:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
50 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:
Val Leu Lys Gln Leu Ala Leu Ser Glu
1 5
- 60 (2) INFORMATION FOR SEQ ID NO: 31:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
65 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

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Val Leu Lys Gln Leu Val Leu Ser Glu
1 5

5 (2) INFORMATION FOR SEQ ID NO: 32:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

Val Leu Lys Gln Leu Leu Ala Ser Glu
1 5

20 (2) INFORMATION FOR SEQ ID NO: 33:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

Tyr Leu Glu Gly Leu Leu Met His Gln Ala Ala
1 5 10

35 (2) INFORMATION FOR SEQ ID NO: 34:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

Leu Leu Ala Ser Leu Leu Gln Ser Glu Ser Ser
1 5 10

50 (2) INFORMATION FOR SEQ ID NO: 35:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

His Leu Lys Thr Leu Leu Lys Lys Ser Lys Val
1 5 10

65 (2) INFORMATION FOR SEQ ID NO: 36:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

70

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- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:
- Gln Leu Ala Leu Leu Leu Ser Ser Glu Ala His
1 5 10
- 10 (2) INFORMATION FOR SEQ ID NO: 37:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
15 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:
- Leu Leu Leu His Leu Leu Lys Ser Gln Thr Ile
1 5 10
- 25 (2) INFORMATION FOR SEQ ID NO: 38:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
30 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:
- Leu Leu Gln Leu Leu Leu Gly His Lys Asn Glu
1 5 10
- 40 (2) INFORMATION FOR SEQ ID NO: 39:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
45 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:
- Val Leu Gln Leu Leu Leu Gly Asn Pro Lys Gly
1 5 10
- 55 (2) INFORMATION FOR SEQ ID NO: 40:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
60 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:
- Leu Leu Ser Arg Leu Leu Arg Gln Asn Gln Asp
1 5 10
- 70 (2) INFORMATION FOR SEQ ID NO: 41:

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- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:
Val Leu Lys Gln Leu Leu Ser Glu Asn Cys
1 5 10
- 15 (2) INFORMATION FOR SEQ ID NO: 42:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
20 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:
Lys Leu Val Gln Leu Leu Thr Thr Thr Ala Glu
1 5 10
- 30 (2) INFORMATION FOR SEQ ID NO: 43:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
35 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:
Ile Leu His Arg Leu Leu Gln Glu Gly Ser Pro
1 5 10
- 45 (2) INFORMATION FOR SEQ ID NO: 44:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
50 (B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:
Leu Leu Arg Tyr Leu Leu Asp Lys Asp Glu Lys
1 5 10
- 60 (2) INFORMATION FOR SEQ ID NO: 45:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
65 (B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

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Leu Leu Gln Gln Leu Thr Glu
1 5

5 (2) INFORMATION FOR SEQ ID NO: 46:

- 10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

Lys Leu Leu Gln Leu Leu Thr Thr Lys Ser Asp
1 5 10

20 (2) INFORMATION FOR SEQ ID NO: 47:

- 25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

Ile Leu His Arg Leu Leu Gln Asp Ser Ser Ser
1 5 10

35 (2) INFORMATION FOR SEQ ID NO: 48:

- 40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

Leu Leu Arg Tyr Leu Leu Asp Lys Asp Asp Thr
1 5 10

50 (2) INFORMATION FOR SEQ ID NO: 49:

- 55 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

Gln Leu Ser Glu Leu Leu Arg Gly Gly Ser Gly
1 5 10

65 (2) INFORMATION FOR SEQ ID NO: 50:

- 70 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

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(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

Gln Leu Val Leu Leu Leu His Ala His Lys Cys
1 5 10

10 (2) INFORMATION FOR SEQ ID NO: 51:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

15

(ii) MOLECULE TYPE: peptide

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

Gln Leu Ser Glu Leu Leu Arg Gly Ser Ser Pro
1 5 10

25 (2) INFORMATION FOR SEQ ID NO: 52:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

30

(ii) MOLECULE TYPE: peptide

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

Gln Leu Val Leu Leu Leu His Ala His Lys Cys
1 5 10

40 (2) INFORMATION FOR SEQ ID NO: 53:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

45

(ii) MOLECULE TYPE: peptide

50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

Ile Leu Thr Ser Leu Leu Leu Asn Ser Ser Gln
1 5 10

55 (2) INFORMATION FOR SEQ ID NO: 54:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

60

(ii) MOLECULE TYPE: peptide

65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

Met Leu Met Asn Leu Leu Lys Asp Asn Pro Ala
1 5 10

70 (2) INFORMATION FOR SEQ ID NO: 55:

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- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:
Thr Leu Arg Ser Leu Leu Leu Asn Pro His Leu
1 5 10
- 15 (2) INFORMATION FOR SEQ ID NO: 56:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
20 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:
Arg Leu Ala Val Leu Leu Pro Gly Arg His Pro
1 5 10
- 30 (2) INFORMATION FOR SEQ ID NO: 57:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
35 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:
Glu Leu His Asn Leu Leu Glu Val Val Ser Gln
1 5 10
- 45 (2) INFORMATION FOR SEQ ID NO: 58:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
50 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:
Thr Leu Arg Asp Leu Leu Thr Thr Thr Ala Gly
1 5 10
- 60 (2) INFORMATION FOR SEQ ID NO: 59:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
65 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

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Phe Leu Asp Phe Leu Leu Gly Phe Ser Ala Gly
1 5 10

5 (2) INFORMATION FOR SEQ ID NO: 60:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
10 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

Val Leu Glu Leu Leu Leu Arg Ala Gly Ala Asn
1 5 10

20 (2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
25 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

Ile Leu Ala Arg Leu Leu Arg Ala His Gly Ala
1 5 10

35 (2) INFORMATION FOR SEQ ID NO: 62:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
40 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

Ala Leu Gln Asp Leu Leu Arg Thr Leu Lys Ser
1 5 10

50 (2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
55 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

Ala Leu Gln Asn Leu Leu Arg Thr Leu Arg Ser
1 5 10

65 (2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
70 (C) STRANDEDNESS: single

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- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:
- Lys Leu Leu Gln Leu Leu Thr Cys Ser Ser Asp
1 5 10
- 10 (2) INFORMATION FOR SEQ ID NO: 65:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
15 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:
- Ile Leu His Lys Leu Leu Gln Asn Gly Asn Ser
1 5 10
- 25 (2) INFORMATION FOR SEQ ID NO: 66:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
30 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:
- Leu Leu Arg Tyr Leu Leu Asp Arg Asp Asp Pro
1 5 10
- 40 (2) INFORMATION FOR SEQ ID NO: 67:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
45 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:
- Gln Leu Tyr Ser Leu Leu Gly Gln Phe Asn Cys
1 5 10
- 55 (2) INFORMATION FOR SEQ ID NO: 68:
- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
60 (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:
- Glu Leu Glu Asn Leu Leu Gln Gln Gly Gly
1 5 10
- 70 (2) INFORMATION FOR SEQ ID NO: 69:

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- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:
Val Leu Gln Lys Leu Leu Lys Glu Lys Asp
1 5 10
- 15 (2) INFORMATION FOR SEQ ID NO: 70:
- 20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:
Glu Leu Asn Gln Leu Leu Asn Ala Val Lys
1 5 10
- 30 (2) INFORMATION FOR SEQ ID NO: 71:
- 35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:
Val Leu Lys Asp Leu Leu Lys Gln
1 5
- 45 (2) INFORMATION FOR SEQ ID NO: 72:
- 50 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- 55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:
Pro Gln Ala Gln Gln Lys Ser Leu Leu Gln Gln Ala Ala Thr
1 5 10
- 60 (2) INFORMATION FOR SEQ ID NO: 73:
- 65 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
- 70 (ii) MOLECULE TYPE: peptide

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

Ser Gln Thr Ser His Lys Leu Val Gln Leu Leu Thr Thr Thr
1 5 10

5

(2) INFORMATION FOR SEQ ID NO: 74:

(i) SEQUENCE CHARACTERISTICS:

10

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

Thr Ala Arg His Lys Ile Leu His Arg Leu Leu Gln Glu
1 5 10

20

(2) INFORMATION FOR SEQ ID NO: 75:

(i) SEQUENCE CHARACTERISTICS:

25

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

Ser Lys Asp His Gln Leu Leu Arg Tyr Leu Leu Asp Lys
1 5 10

35

(2) INFORMATION FOR SEQ ID NO: 76:

(i) SEQUENCE CHARACTERISTICS:

40

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

Gln Ala Gln Gln Lys Ser Leu Leu Gln Gln Leu Leu Thr Glu
1 5 10

50

(2) INFORMATION FOR SEQ ID NO: 77:

(i) SEQUENCE CHARACTERISTICS:

55

- (A) LENGTH: 44 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

60

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

GAATTCCTGC AGCCCGGGGT CGACACTAGT TAACTAGCGG CCGC

44

65 (2) INFORMATION FOR SEQ ID NO: 78:

(i) SEQUENCE CHARACTERISTICS:

70

- (A) LENGTH: 38 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

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(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

AAGCTTCCAC CATGGTGCCA AAGAAGAAAC GTAAAGTT

38

10 (2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 38 base pairs

(B) TYPE: nucleic acid

15 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

TCTAGACTGC AGACTAGTAG ATCTCCCGGG GCGGCCGC

38

(2) INFORMATION FOR SEQ ID NO: 80:

25 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

30 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

35 Glu Phe Leu Gln Pro Gly Val Asp Thr Ser
1 5 10

(2) INFORMATION FOR SEQ ID NO: 81:

40 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

45 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

50 Met Val Pro Lys Lys Lys Arg Lys Val
1 5